



# READY TO UPGRADE YOUR HEATING?

# KEEP YOUR GAS CYLINDERS FLOWING

Uniform heat for propane, nitrogen, oxygen, and more.

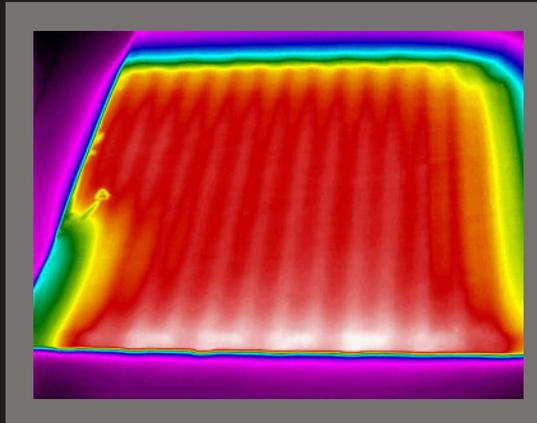
## PROVEN HEAT. STABLE FLOW.

You have a challenge that traditional heating methods can't solve—whether it's unstable gas pressure, inconsistent flow, or mission-critical fab uptime.

Our precision gas cylinder warmers are engineered to maintain uniform heat, stable pressure, and consistent flow across **ALL OPERATING CONDITIONS.**

That's why **AIR LIQUIDE** turned to us. Our solution eliminated cold-weather flow issues in dichlorosilane cylinders, providing safe, repeatable heat that nearly **DOUBLED THEIR DAILY OUTPUT.**

**OUR PROVEN TECHNOLOGY CAN DO THE SAME FOR YOU.**

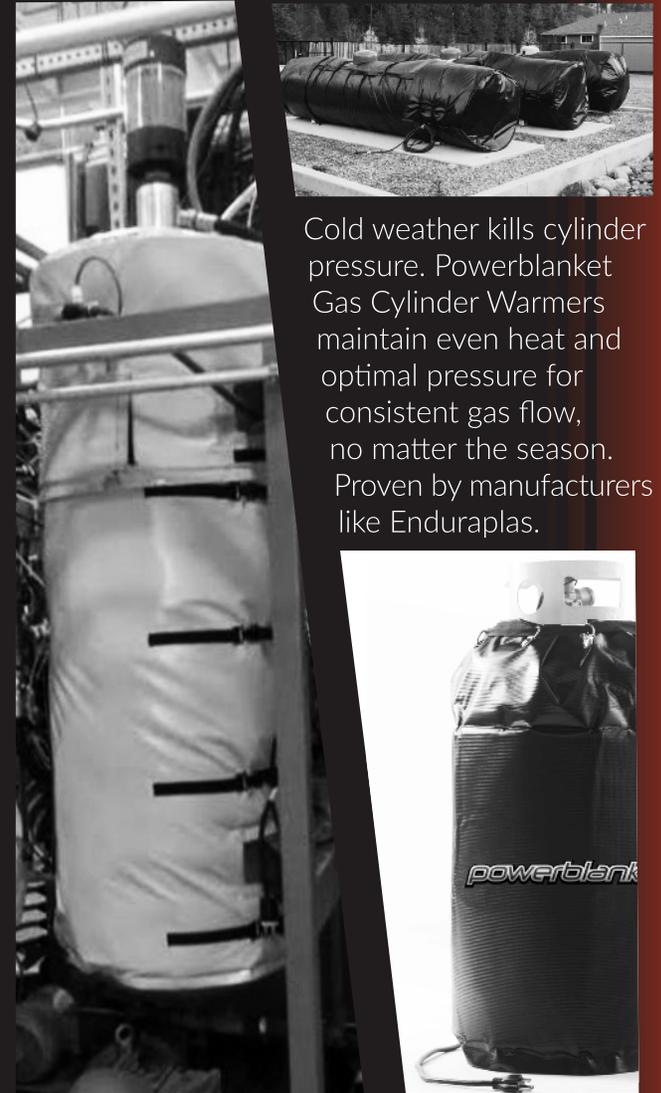


Our patented design eliminates hot spots and ensures process accuracy.

Scan To Get Your Custom Solution Started



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Salt Lake City, UT 84119



Cold weather kills cylinder pressure. Powerblanket Gas Cylinder Warmers maintain even heat and optimal pressure for consistent gas flow, no matter the season. Proven by manufacturers like Enduraplas.



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## KEEP YOUR PROCESS GASES FLOWING

Stored gases supply their best output when warm. Gas volume is determined by the number of molecule collisions occurring within the container, and these collisions increase as the temperature increases. Powerblanket heaters increase flow and insulation. Increase your gas efficacy with Powerblanket.

### STABLE TEMPERATURE CONTROL

Keeps process gases within tightly regulated ranges to ensure consistent pressure and flow.

### MAINTAINS GAS ACCURACY

Supports accurate delivery during wafer fabrication & other sensitive processes.

### PREVENTS CONDENSATION

Reduces moisture risk that can compromise purity and precision.

### IMPROVES PROCESS STABILITY

Minimizes temperature fluctuations that could disrupt uniformity & yield.

### TRUSTED RELIABILITY

Proven performance in critical environments where downtime is costly.

### ENERGY-EFFICIENT DESIGN

Uses targeted heat to maintain cylinders without wasting excess power.

### READY-TO-USE SOLUTION

Easy to install and integrate into existing gas handling systems.

### ENHANCED SAFETY

Prevents cylinder pressure drops that can cause system shutdowns or inconsistent operation.



In semiconductor fabrication, maintaining the thermal stability of process gases during storage and transfer is critical to repeatability and yield. Powerblanket Gas Cylinder Warmers provide uniform, regulated heat around gas cylinders, preventing condensation, adsorption, and pressure fluctuations that compromise sensitive chemistries such as metalorganics, dopants, and etchants.

By ensuring consistent gas delivery and mitigating variability caused by temperature swings, Powerblanket technology supports stable mass flow control and process uniformity across CVD, ALD, and etch applications—helping manufacturers meet the exacting standards of advanced device production.

# AIR LIQUIDE'S COLD WEATHER FLOW DILEMMA

In semiconductor fabrication, precision is everything. Process gases—must remain within tightly regulated temperature ranges to ensure consistent pressure, stable flow rates, and accurate delivery during deposition and etching steps.

The world leader in gases, technologies, and services faced an issue similar to Enduraplas' propane pressure drop. Air Liquide, the world leader in gases, technologies, and services for Industry and Health, faced this challenge when moving dichlorosilane gas from 1-ton cylinders to smaller portable containers. In cold weather, the gas became too cold to drain completely, reducing flow and preventing consistent supply. Ideally, the gas needed to maintain around 120°F to vaporize and flow correctly. Without temperature control, productivity dropped and costly downtime followed.

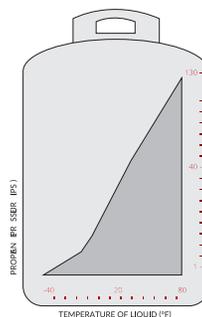
For a fabrication facility where uptime and consistency are paramount, even small fluctuations can lead to costly downtime and yield loss.

POWERBLANKET'S GAS CYLINDER WARMERS provided a uniform, regulated source of heat that wrapped the gas cylinders, ensuring consistent temperature and pressure even when ambient conditions fluctuated. By maintaining thermal stability, the fab eliminated flow disruptions and preserved production quality.

The result? Optimized process stability, reduced downtime, and improved confidence in gas delivery systems—without the need for costly infrastructure changes.



Every business that stores gas knows how inconsistent temperatures can disrupt their performance. Keeping gas cylinders warm with Powerblanket is reliable and efficient.



## GAS CYLINDER HEATERS

Powerblanket has the best gas cylinder heaters on the market. They overcome the effects of cold weather & dropping ambient temperatures while maintaining pressure and efficiency on any gas cylinder. Protect your assets against the threat of failure, downtime, and hazardous conditions.

### KEY BENEFITS

- Increase performance and efficiency of gas cylinders.
- Save money by optimizing gas and material usage.
- Eliminate unnecessary cylinder refills in cold weather
- Insulated full-wrap design



“Powerblanket’s propane heaters worked so well that we only ended up having to wrap one tank per pigtail. The blankets maintained a high enough pressure that the propane transferred to the next tank without any problem.”

